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#6

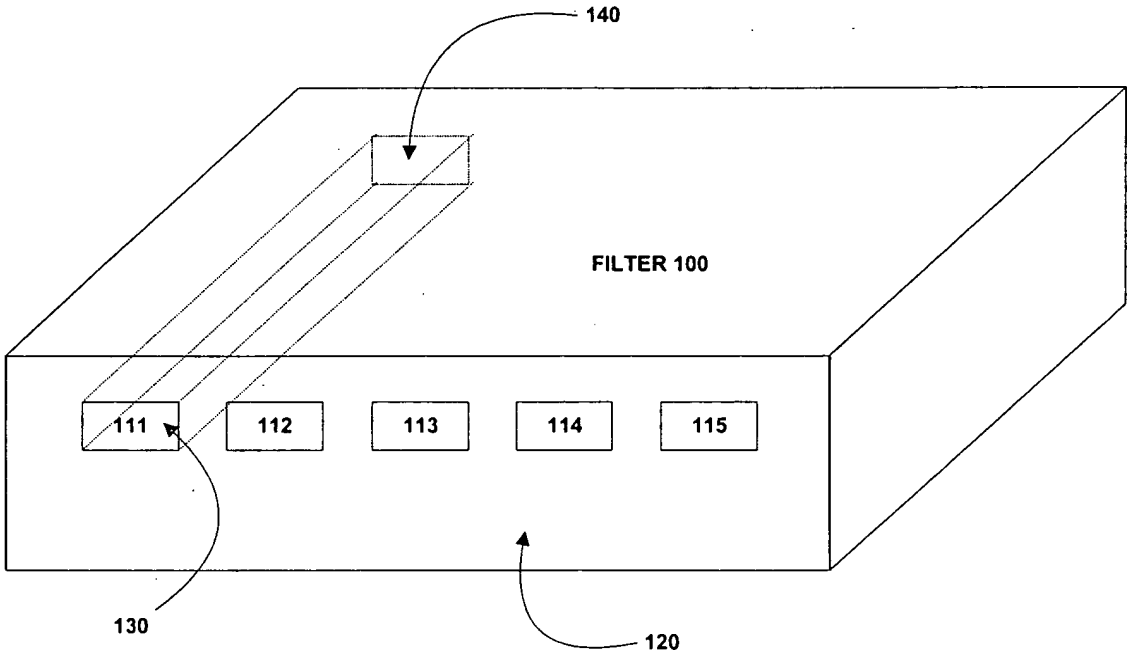

FIGURE 1

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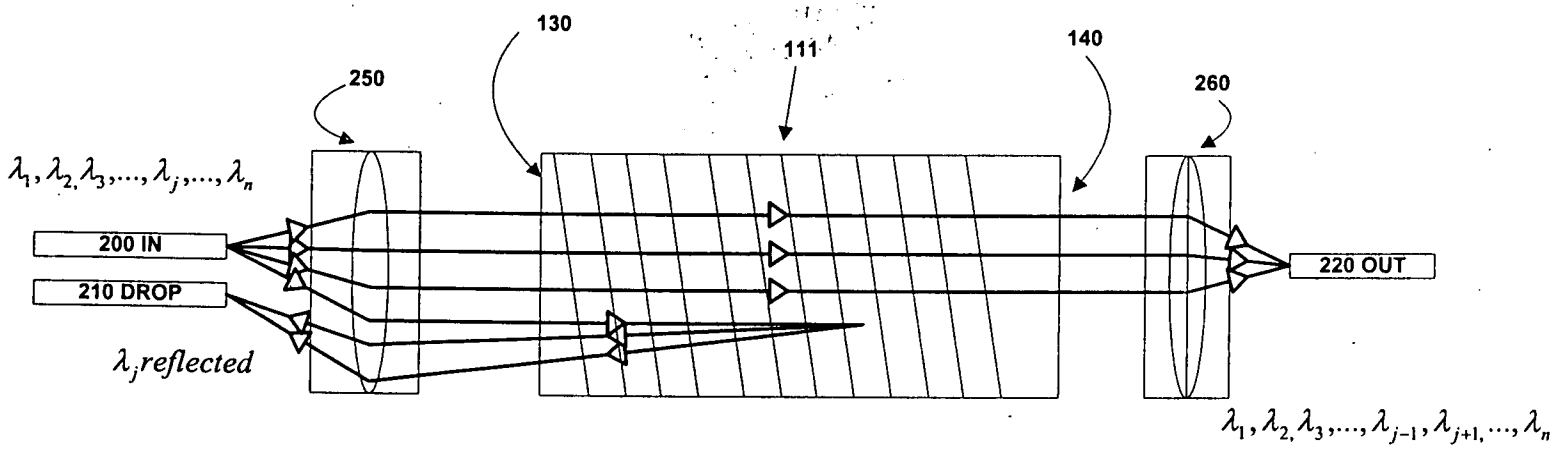

FIGURE 2

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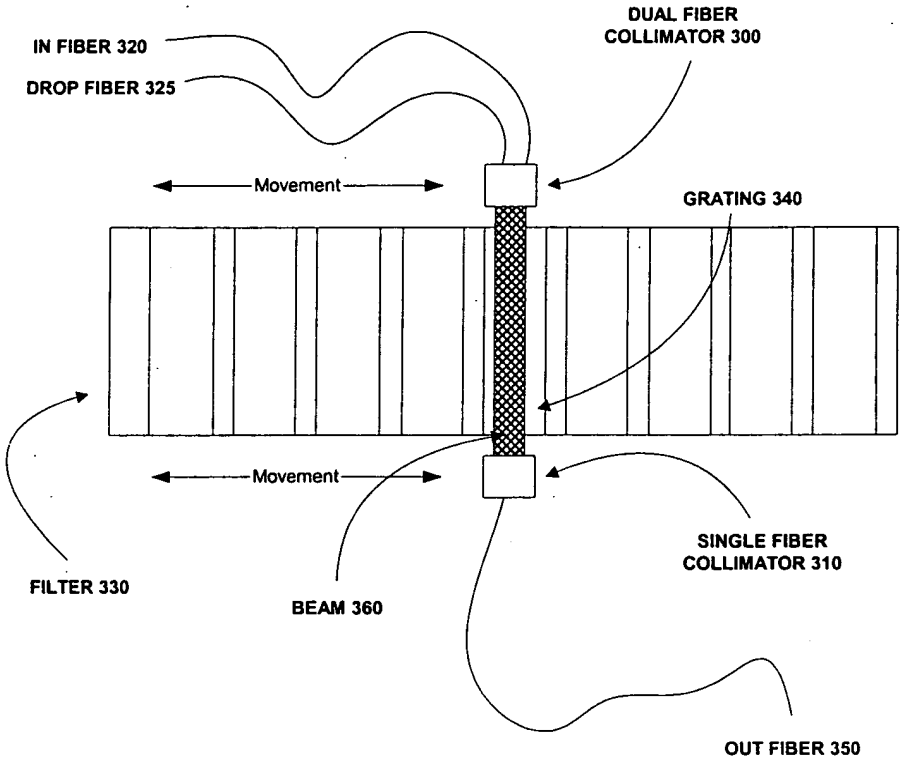

FIGURE 3

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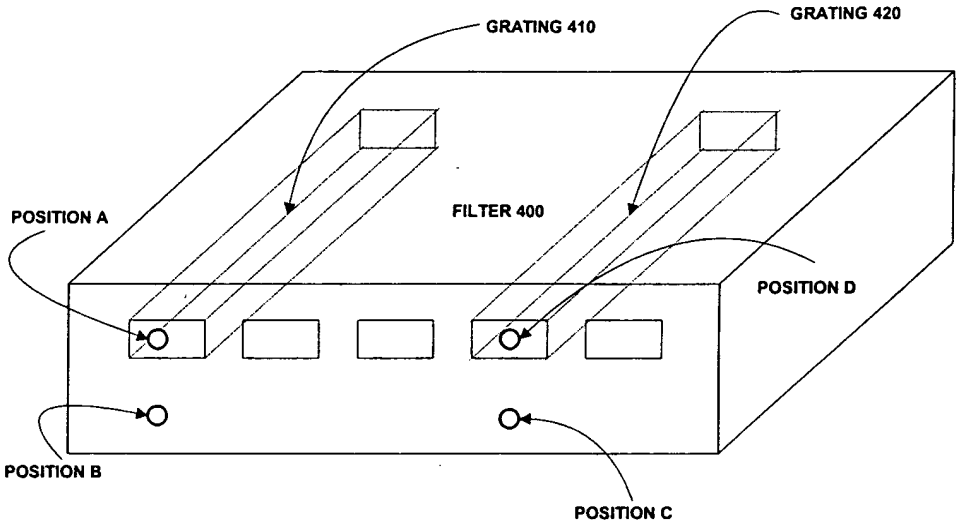

FIGURE 4

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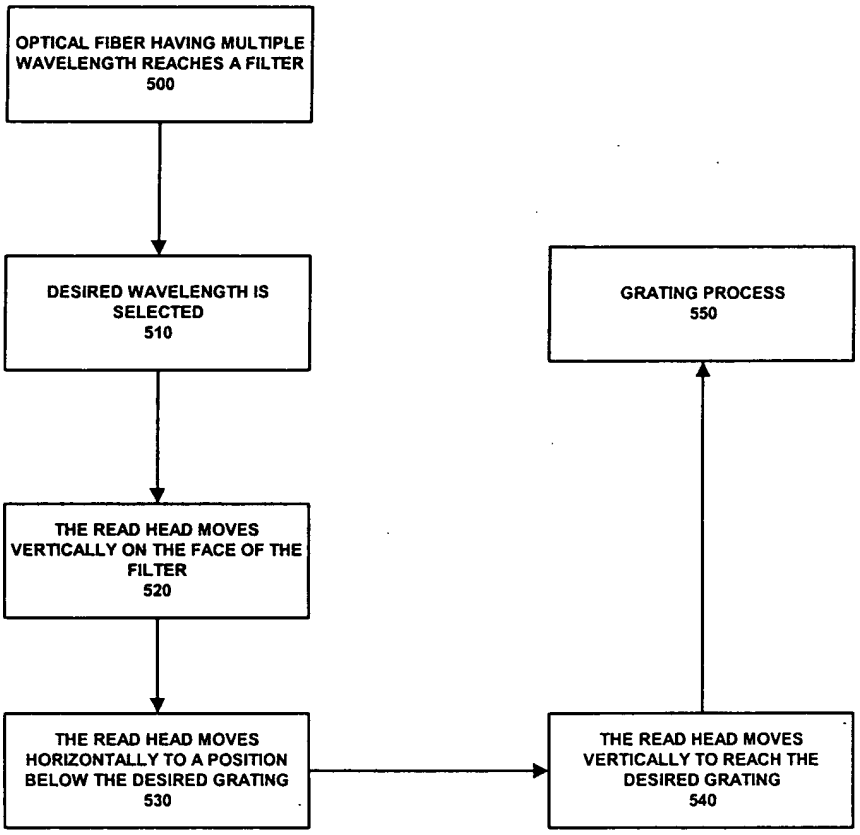

FIGURE 5

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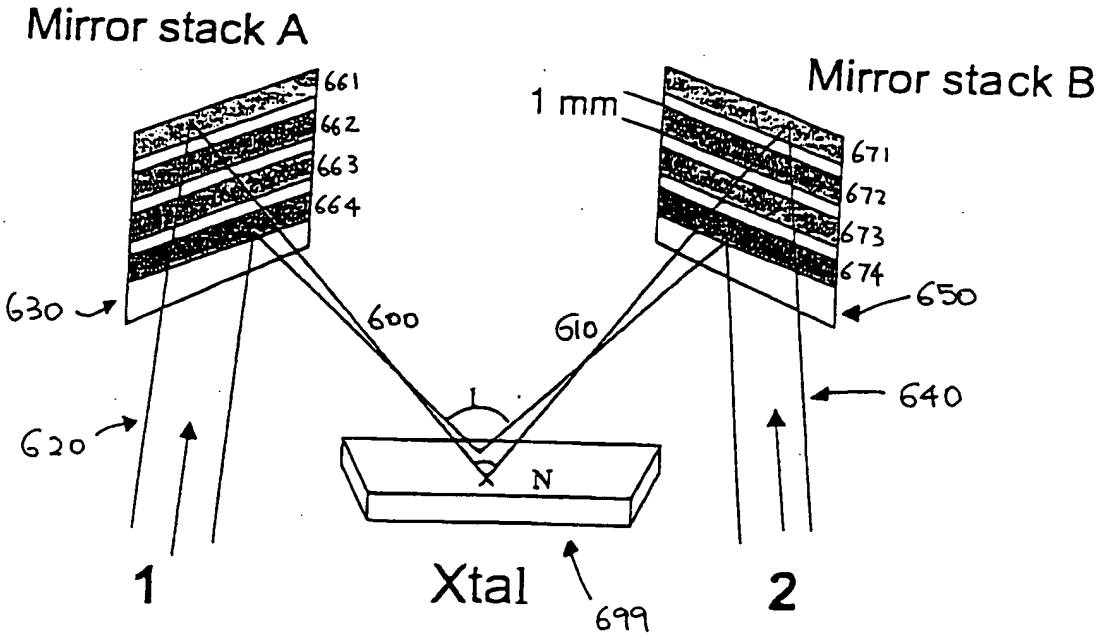

FIGURE 6

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PHASE MASK METHOD

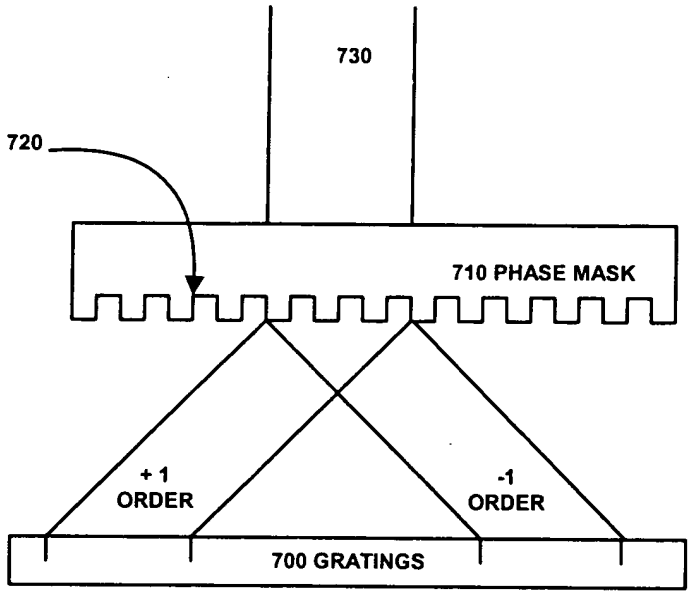

FIGURE 7

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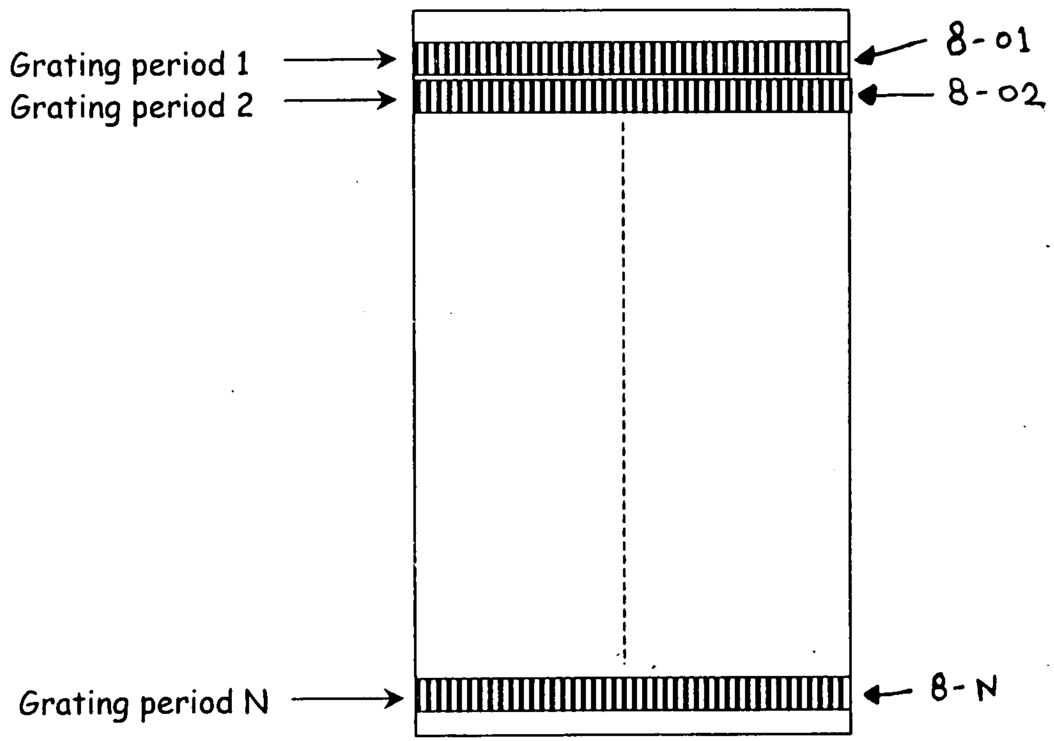
a



Phase mask Top view

FIGURE 8

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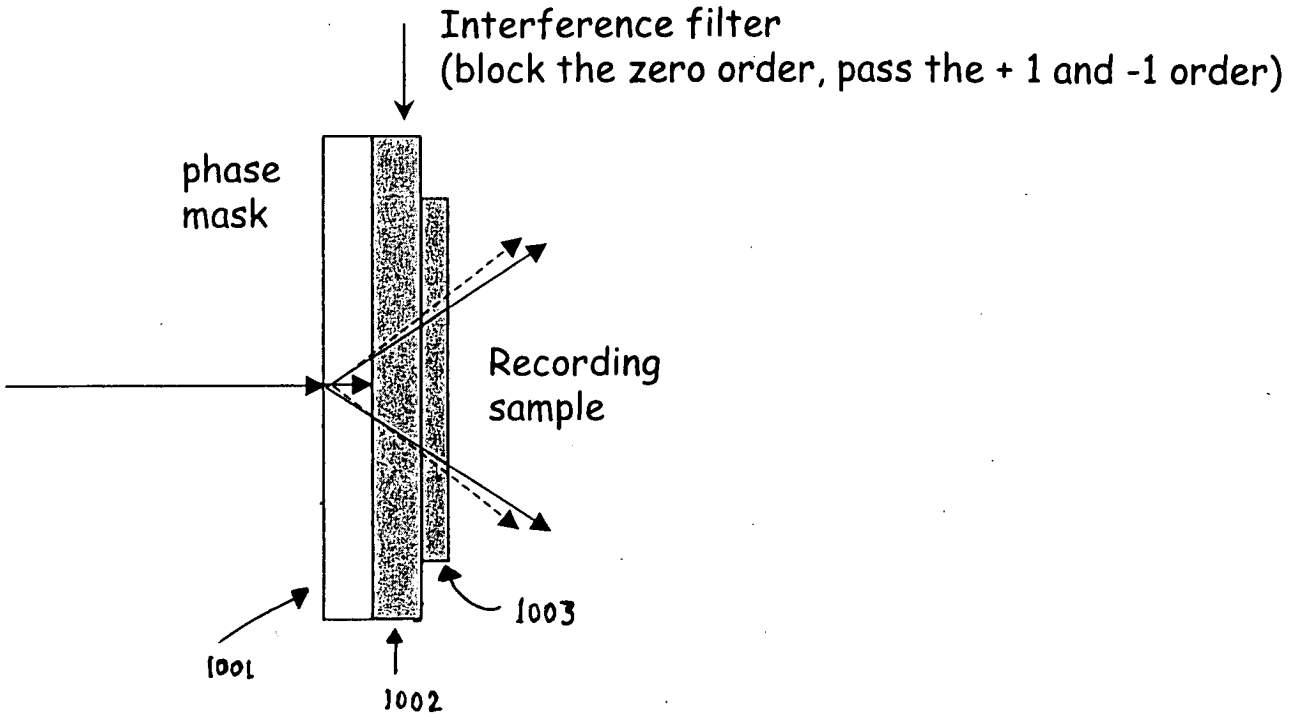
C



Near field recording

FIGURE 10

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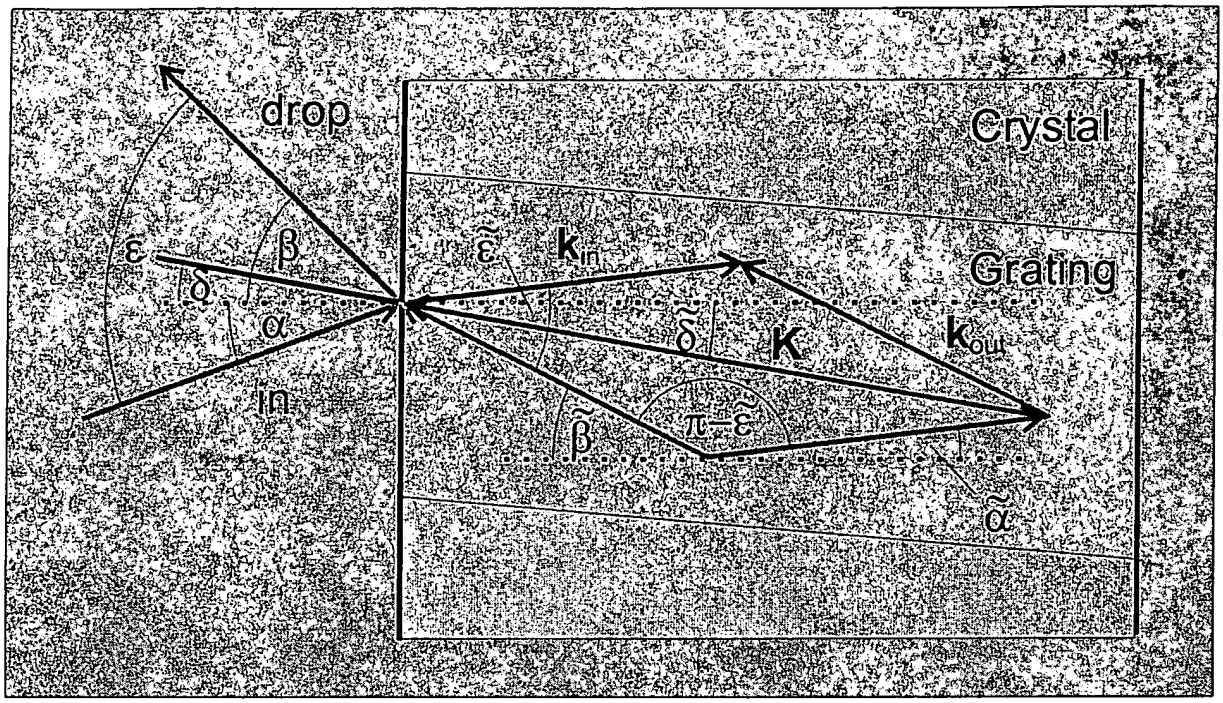
20020730 "45960207"



$\tilde{\alpha}$ = input beam in the crystal; α = input beam in air

$\tilde{\beta}$ = output beam in the crystal; β = output beam in air;

$\tilde{\varepsilon}$ = full angle between the read out beams in the crystal;

ε = full angle between the read out beams in air;

$\tilde{\delta}$ = slant angle of the grating vector in the crystal at room temperature;

$\tilde{\delta}^{H}$ = slant angle of the grating vector in the crystal at 180 °C;

δ = slant angle of the dual fiber collimator;

$\mathbf{K}$ = grating vector; $\mathbf{k}_{in}$ *and* $\mathbf{k}_{out}$ = wave vectors (in and out);

Λ_G = grating period of the refractive index pattern at room temperature;

Λ_G^H = grating period of the refractive index pattern at 180 °C;

Λ_P = grating period of the phase mask;

λ_R = read out wavelength

n_R = refractive index for infrared light

$a_z = 4.5 \cdot 10^{-6} K^{-1}$; $a_y = 1.5 \cdot 10^{-5} K^{-1}$; thermal expansion koefficients

$T_R = 25°\mathrm{C}$, read out temperature; $T^H{}_R = 180°\mathrm{C}$, recording temperature; $\Delta T = 155K$;

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FIGURE 11

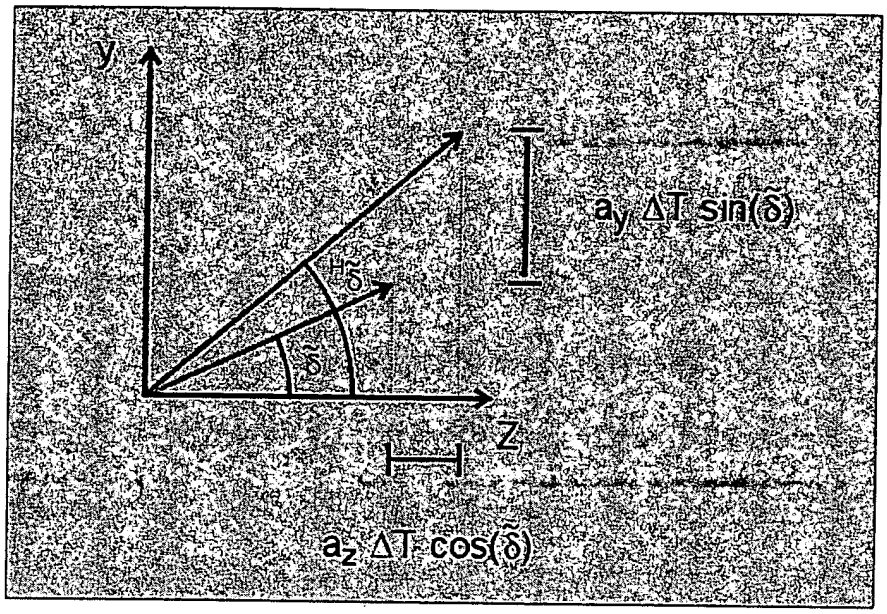

FIGURE 12

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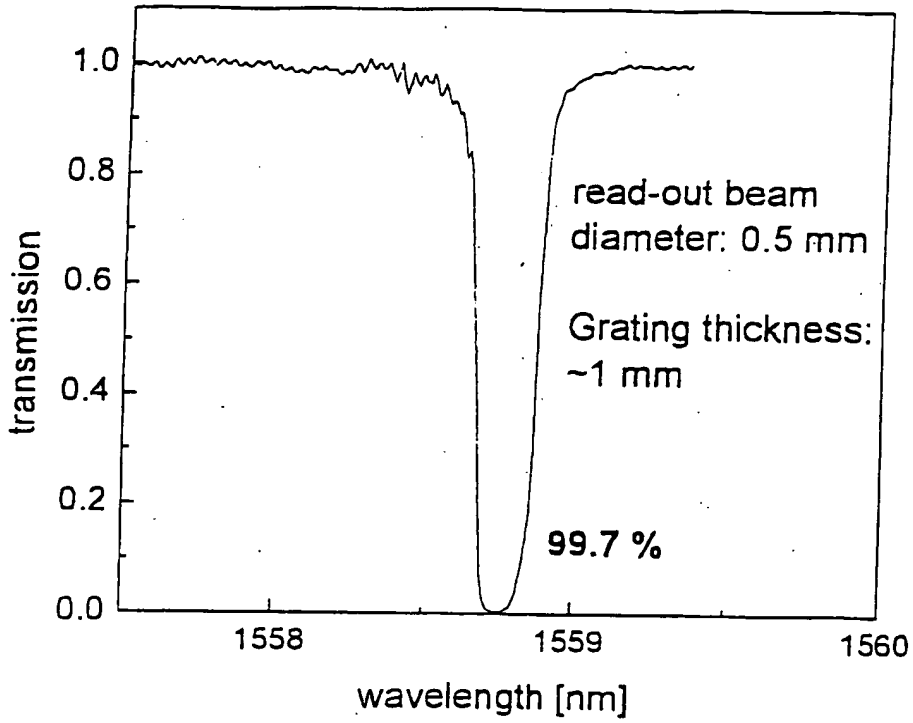

FIGURE 13

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10006934 .080202

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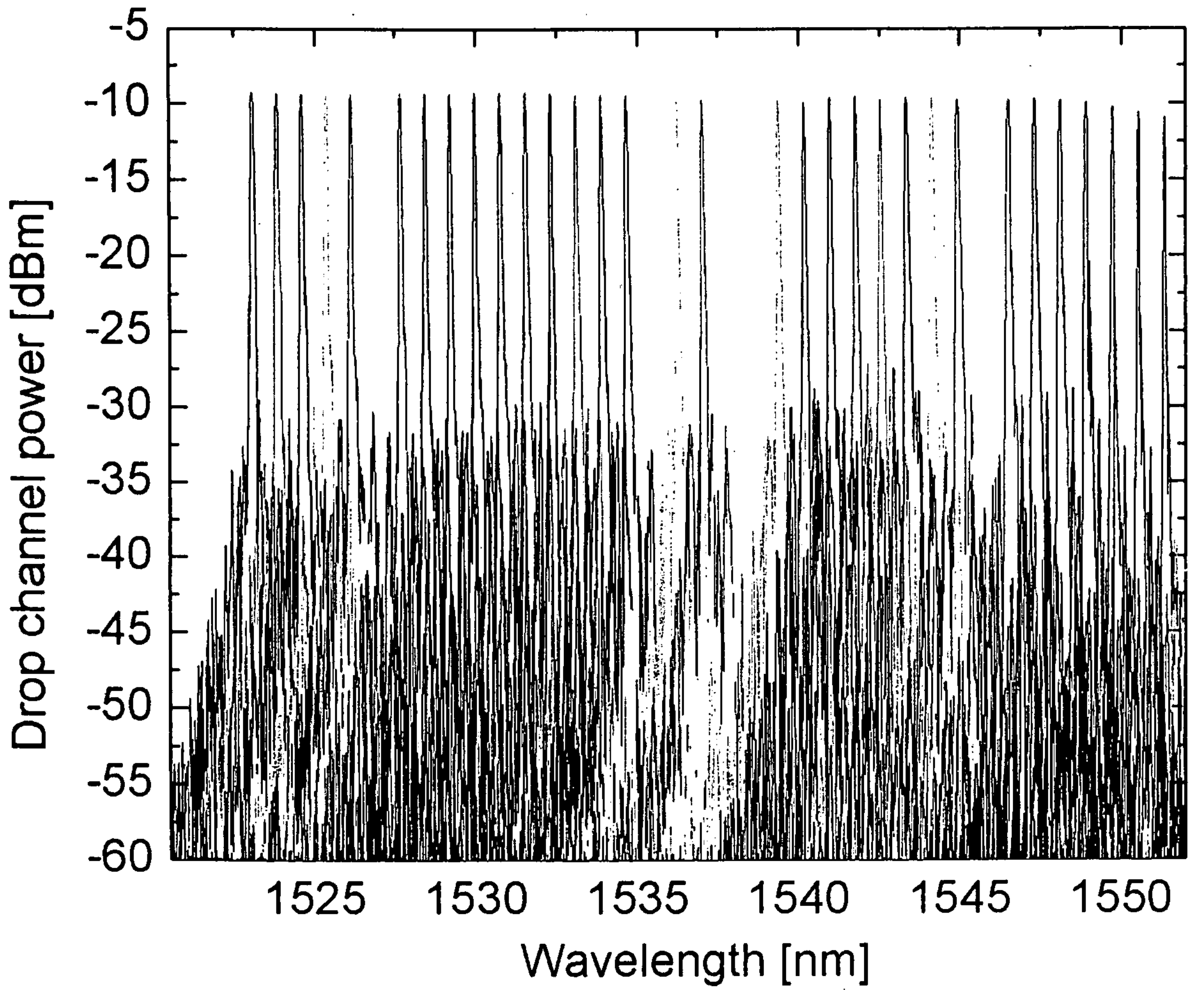

FIGURE 14